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## Abstract

A tissue press for shaping or compressing a piece of tissue comprises first and second members movable relative to each other. A first forming element of a predetermined shape is selectively engageable on the first member. A second forming element of predetermined shape is selectively engageable on the second member. The first and second forming elements are positionable on opposite sides of the piece of tissue. The first and second members are relatively movable between a first spaced apart condition and a second condition in which the piece of tissue is held between the first and second forming elements. Means are preferably provided for monitoring and controlling the amount of pressure applied to the piece of tissue, in order to maintain the tissue in a viable living condition. may also be provided for draining off fluid from compressed tissue, so that the tissue can be implanted in a compressed state and imbibe fluid from the host site. A retainer, which may be expandable, can be used to maintain the tissue graft in a compressed condition.